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(21) Application number: **09131915**(71)[†] Applicant: **DAINIPPON SCREEN MFG CO LTD**(22) Date of filing: **22.05.97**(72) Inventor: **YOSHIHARA KAZUHIRO**(54) **OPTICAL IRREGULARITY INSPECTION DEVICE AND METHOD**

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(57) Abstract:

PROBLEM TO BE SOLVED: To inspect the optical irregularity of an inspection target uniformly, automatically, and speedily.

SOLUTION: An image-processing part 3 extracts the amount of feature of the image of a learning sample or an inspection target 100. A learning part 4 creates a neural network using the amount of feature and an output target value for a plurality of learning samples being stored in a storage device 6, changes the amount of feature and inputs it to the neural network, substitutes an unknown product for the output target value when the output value of the neural network differs from the output target value, and reconstructs the neural network using the original amount of feature and the output target value after correction. A judging part 5 inputs the amount of feature of the inspection target 100 being extracted from the image-processing part 3 to the neural network and outputs the output value of the neural network as a judgment result for indicating a conforming article, a non-conforming article, or an unknown article.

